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EXAMINER	
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/815,233	CHEN ET AL.	
	Examiner	Art Unit	
	Mary C. Jacob	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 July 2007* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The response filed 7/9/07 has been received and considered. Claims 1-27 have been presented for examination.

Drawings

2. The objections to Figures 3 and 4 have been withdrawn in view of the amendments to the drawings, filed 7/9/07.

3. The drawings labeled, "Replacement Sheet Showing Changes Made" were received on 7/9/07. These drawings are not acceptable because a "marked-up" copy of an amended drawing figure, including annotations indicating the changes made, must be labeled as "Annotated Sheet" (see 37 CFR 1.121(d) (1).

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 163. The drawings labeled, "Replacement Sheet" do not delete element 163 as shown on the "Replacement Sheet Showing Changes Made".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The objection to the disclosure is withdrawn in view of the amendments to the specification, filed 7/9/07.

Claim Objections

6. The objections to the claims recited in the 3/7/07 Office Action, not repeated below, have been withdrawn in view of the amendments to the claims filed 7/9/07.

7. Claims 1, 7 and 19 are objected to because of the following informalities. Appropriate correction is required.

8. Claim 1, lines 9-10 recite, "...wherein the resource profile resource subset is modified during the simulation according to the service level agreement". From the language of the claims, it does not appear that the "service level agreement" changes. Therefore, the claim seems to indicate that modifying "the resource profile resource subset" according to this "service level agreement" would not actually change anything

in the resource profile resource subset since the "service level agreement" stays the same.

9. Claim 1, line 9, "produce service level result" should read, "produce a service level result".

10. Claim 7, line 2, "resource profile" should read, "the resource profile".

11. Claim 19, line 3 recites, "logic does will not process...".

Claim Rejections - 35 USC § 112

12. The rejections of the claims under 35 U.S.C. 112, second paragraph, recited in the 3/7/07 Office Action, not repeated below, have been withdrawn in view of the amendments to the claims filed 7/9/07

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 14-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

15. Claim 14, line 3 recites "a result of the simulated processing", which points to "simulating processing of the workload profile using the allocated subset of the set of available computing resources to produce a service level result" in Claim 13. It is unclear whether "a result" as recited in Claim 14 points to the "service level result" in Claim 13, or intends to be directed to a different "result" produced by the simulation. Further, if it claim does intend to point to the "service level result", it is unclear how the

"service level result" can "process the workload profile". Claim 13 recites that the "set of available computing resources" are used to process the workload profile.

16. Claims 15, 16 and 17 are directed to the "workload profile" comprising components such as "processing resources", "memory resources", "base resource allocation" and "communication bandwidth". Because Claim 13 recites that the workload profile represents a "hypothetical demand profile", it is unclear how the "workload profile" comprises these recited components. Further, the specification, paragraph 0041 recites that the components in these limitations are part of the "resource profile" and not the "workload profile". Claims 22-24 recite similar limitations, but they are directed to the "resource profile", not the "workload profile".

Claim Rejections - 35 USC § 101

17. The rejection of Claims 1-20 under 35 U.S.C. 101 recited in the 3/7/07 Office Action have been withdrawn in view of the amendments to the claims and in view of further consideration of the "service level result" being a "useful" result as it is used to determine if the service level agreement is sufficient (Figure 6, elements 229-233 and description). As to Claims 1 and 13, Applicant recites in the Remarks, page 24, paragraphs 2 and 3, that "the modification of a resource profile of a SLA in effect modifies, or redefines, the SLA...". It is noted that Claims 1 and 13 do not recite a limitation that that modification of the resource profile redefines the service level agreement, and further, the claims does not recite any limitation that indicate that the service level agreement changes.

18. The rejections of Claims 21-27 under 35 U.S.C. 101 recited in the 3/7/07 Office Action have been withdrawn in view of the amendments to the claims and in view of further consideration of the "signaling whether the computing resource profile will process the workload profile at an expected service level" being a "useful" result as it is used to determine if the service level agreement is sufficient (Figure 6, elements 229-233 and description).

Claim Interpretation

19. Office personnel are to give claims their **"broadest reasonable interpretation"** in light of the supporting disclosure. *In re Morris,* 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater,* 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551(CCPA 1969). See *also *In re Zletz,* 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322(Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow") .... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed .... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.

20. For the purposes of examination, Claim 14 was interpreted as being directed to logic for signaling whether the "allocated subset of available computing resources" will

process the workload profile at an expected service level corresponding to the service level agreement since it is unclear how a "service level result" can process a workload profile, as discussed above in relation to the rejection of the claims under 35 U.S.C. 112, second paragraph.

21. For the purposes of examination, Claims 15, 16 and 17 were interpreted to be directed to the "allocated subset of the set of available computing resources" of claim 13, not the "workload profile" based on the description in the specification, specifically, paragraph 0042, discussed above in relation to the rejection of the claims under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 102

22. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

23. Claims 1, 3, 4, 7, 8, 10, 12, 13, 15-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Chandra et al ("An Online Optimization-based Technique for Dynamic Resource Allocation in GPS Servers", Technical Report UM-CS-2002-030, University of Massachusetts, July 2002).

24. As to Claims 1 and 13, Chandra et al teaches: a method for predicting service level in a utility computing environment having a dynamically allocated subset of computing resources from a set of available computing resources, the method

comprising the steps of: creating a resource profile corresponding to a first subset of computing resources allocated according to a service level agreement (page 1, column 2, paragraph 2, lines 18-29; page 2, section A, lines 1-10; pages 2-3, "Problem Definition", paragraphs 1-3; page 7, "Simulation Setup and Workload Characteristics", paragraph 1, lines 1-2; page 9, column 1, lines 4-9); loading a workload profile representing a demand profile for the enterprise (page 3, "Dynamic Resource Allocation", paragraph 1; page 5, "Workload Prediction Techniques", paragraph 2; page 7, "Simulation Setup and Workload Characteristics", paragraph 2, lines 1-2); and simulating the processing of the workload profile using the resource profile to produce a service level result, wherein the resource profile resource subset is modified during the simulation according to the service level agreement and based upon the service level result (page 7, "Simulation Setup and Workload Characteristics", paragraph 1, lines 1-2, paragraph 2, lines 1-2; pages 8-9, sections C and C.1; page 10, section C.2, last paragraph).

25. As to Claims 3 and 15, Chandra et al teaches: wherein the subset of computing resources includes allocated processing resources and memory resources for a client account (page 2, section A, lines 1-10, lines 17-21).

26. As to Claims 4 and 16, Chandra et al teaches: wherein the service level agreement includes a base resource allocation (page 3, column 1, lines 1-5; page 4, column 1, "ii"), a maximum resource allocation (page 4, column 1, "ii"), resource costs (page 4, column 1, last 4 sentences-column 2, line 2) and rules for dynamically

reallocating the resources based upon workload demand (pages 3-4, "Allocating Resource Shares to Applications", paragraphs 1-2).

27. As to Claims 7 and 17, Chandra et al teaches: wherein the set of computing resource profile also includes communication bandwidth allocation (page 2, section A, lines 17-21).

28. As to Claims 8 and 18, Chandra et al teaches: the step of comparing the workload profile to a second workload profile representing an actual demand profile for a second client account wherein the simulating step is based upon a result of the comparison step (page 9, section C.2, paragraphs 1 and 2; Figures 8 and 9).

29. As to Claims 10 and 20, Chandra et al teaches: wherein the workload profile includes scheduling information and the simulation step incorporates the scheduling information in the processing (pages 2-3, "Problem Definition", paragraph 3; pages 8-9, section C.1).

30. As to Claim 12, Chandra et al teaches: wherein the workload profile is loaded from a configuration file (page 7, section A, paragraphs 1 and 2).

Claim Rejections - 35 USC § 103

31. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

32. Claims 2, 9, 11, 14, 19, 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chandra et al as applied to claims 1 and 13 above, and further in view of Nagarajan et al ("Modelling and Simulation of An Alarm Based Network Management System for Effective SLA Monitoring and Management", SCI 2003. 7th World Multiconference on Systemics, Cybernetics and Informatics Proceedings, July 27-30, 2003).

33. As to Claims 2, 9, 11, 14, 19, 21 and 26, Chandra et al teaches: predicting service level in a utility computing environment having a dynamically allocated subset of computing resources from a set of available computing resources including: a resource list detailing a set of available computing resources (page 2, section A, lines 1-6) and an allocated resource list detailing an allocated subset of computing resources (page 2, section A, lines 6-10; page 3, column 1, lines 1-6); creating a resource profile corresponding to an allocated subset of computing resources allocated according to a service level agreement (page 1, column 2, paragraph 2, lines 18-29; page 2, section A,

lines 1-10; pages 2-3, "Problem Definition", paragraphs 1-3; page 7, "Simulation Setup and Workload Characteristics", paragraph 1, lines 1-2; page 9, column 1, lines 4-9); loading a workload profile representing a demand profile for the enterprise (page 3, "Dynamic Resource Allocation", paragraph 1; page 5, "Workload Prediction Techniques", paragraph 2; page 7, "Simulation Setup and Workload Characteristics", paragraph 2, lines 1-2); and simulating the processing of the workload profile using the resource profile to produce a service level result, wherein the resource profile resource subset is modified during the simulation according to the service level agreement (page 7, "Simulation Setup and Workload Characteristics", paragraph 1, lines 1-2, paragraph 2, lines 1-2; pages 8-9, sections C and C.1; page 10, section C.2, last paragraph). As to logic and memory, it is concluded that since Chandra teaches that the prediction and allocation techniques are simulated using various simulation packages (page 7, section A, paragraph 1), it is understood that memory and logic are present to store the simulation program, algorithms, and system parameters, and that logic is present within the simulation software to perform the simulation operations as disclosed in the limitations.

34. Chandra et al does not expressly disclose: (claims 2, 14 and 21) comparing the service level result to a service level agreement and signaling whether the computing resource profile will process the workload profile at an expected service level corresponding to the service level agreement; (claims 9, 19 and 26) generating a modified service agreement in the event the computing resource profile will not process the workload profile at the expected service level corresponding to the service level

agreement, wherein the modified service level agreement will process the workload profile at the expected service level; (claim 11) wherein the workload profile includes information corresponding to one or both of prioritization of resources and importance of specific resources.

35. Nagarajan et al teaches simulation as an important process in documenting service level agreements (SLA) since simulation studies allow an Internet Service Provider (ISP) to verify their SLA agreements and check if it meets customer expectations and whether the specified service could be provided (section 1, paragraph 2, lines 4-6), wherein the simulation techniques include comparing the service level result to a service level agreement and signaling whether the computing resource profile will process the workload profile at an expected service level corresponding to the service level agreement (section 3, last paragraph, lines 10-12; page 5, column 2, lines 3-9; section 6.2, paragraph 1, lines 1-1-9); generating a modified service agreement in the event the computing resource profile will not process the workload profile at the expected service level corresponding to the service level agreement, wherein the modified service level agreement will process the workload profile at the expected service level (Introduction, paragraph 1, lines 10-17, paragraph 2, lines 4-11; page 2, column 2, lines 3-9); wherein the workload profile includes information corresponding to one or both of prioritization of resources and importance of specific resources (page 2, "The type of scenarios examined in this SLA simulation study", items 2 and 3; page 4, column 1, lines 2-7).

36. Chandra et al and Nagarajan et al are analogous art since they are both directed to the testing of an ISP's allocation of resources and whether they satisfy workload demand and the expected service level corresponding to a service level agreement.

37. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the simulating of processing a workload profile using a resource profile to produce a service level result as taught in Chandra et al to further include comparing the service level result to a service level agreement and signaling whether the computing resource profile will process the workload profile at an expected service level corresponding to the service level agreement; generating a modified service agreement in the event the computing resource profile will not process the workload profile at the expected service level corresponding to the service level agreement, wherein the modified service level agreement will process the workload profile at the expected service level; wherein the workload profile includes information corresponding to one or both of prioritization of resources and importance of specific resources as taught in Nagarajan et al since Nagarajan et al teaches simulation as an important process in documenting service level agreements (SLA) since simulation studies allow an Internet Service Provider (ISP) to verify their SLA agreements and check if it meets customer expectations and whether the specified service could be provided (section 1, paragraph 2, lines 4-6).

38. As to Claim 22, Chandra et al in view of Nagarajan et al teach: wherein the set of computing resource profile comprises: processing resources; and memory resources (Chandra et al: page 2, section A, lines 1-10, lines 17-21).

39. As to Claim 23, Chandra et al in view of Nagarajan et al teach: wherein the computing resource profile further comprises: a base resource allocation (Chandra et al: page 3, column 1, lines 1-5; page 4, column 1, "ii"); a maximum resource allocation (Chandra et al: page 4, column 1, "ii"); resource costs (Chandra et al: page 4, column 1, last 4 sentences-column 2, line 2); and rules for dynamically reallocating the resources based upon workload demand (Chandra et al: pages 3-4, "Allocating Resource Shares to Applications", paragraphs 1-2).

40. As to Claim 24, Chandra et al in view of Nagarajan et al teach: wherein the set of computing resource profile also comprises communication bandwidth allocation (Chandra et al: page 2, section A, lines 17-21).

41. As to Claim 25, Chandra et al in view of Nagarajan et al teach: logic for comparing the workload profile to a second workload profile representing an actual demand profile for a second client account, wherein a simulation produced by the simulation logic is based upon a result of the comparison step (Chandra et al: page 9, section C.2, paragraphs 1 and 2; Figures 8 and 9).

42. As to Claim 27, Chandra et al in view of Nagarajan et al teach: wherein the workload profile includes scheduling information and the simulation logic incorporates the scheduling information in the processing (Chandra et al: pages 2-3, "Problem Definition", paragraph 3; pages 8-9, section C.1).

43. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chandra et al as applied to claim 1 above, and further in view of Chan (US Patent 6,466,898).

44. Chandra et al teaches simulating the processing of a workload profile using a resource profile to produce a service level result.

45. Chandra et al does not expressly teach wherein the simulation is scheduled to run automatically at an off-peak time.

46. Chan teaches an HDL simulator that provides simulation job scheduling on a local and/or remote platform that allows designers to balance the work loads on their network resources by scheduling simulation runs at off-peak hours as well as to automate the regular regression testing of their designs (column 4, lines 33-39; column 14, line 51-column 15, line 3).

47. Chandra et al and Chan et al are analogous art since they are both directed to the running of simulations.

48. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the simulating of the processing of a workload profile using a resource profile to produce a service level result as taught in Chandra et al to further include scheduling the simulation to run automatically at an off-peak time as taught in Chan since Chan teaches that job scheduling allows designers to balance workloads on their network resources by scheduling simulation runs at off-peak hours (column 4, lines 33-39; column 14, line 51-column 15, line 3).

49. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chandra et al as applied to claim 1 above, in view of Sheets et al (US Patent 6,816,905).

50. Chandra et al teaches a resource profile corresponding to a first subset of computing resources allocated according to a service level agreement, loading a workload profile representing a demand profile for an enterprise and simulating the processing of a workload profile using a resource profile to produce a service level result.

51. Chandra et al does not expressly teach the step of determining a cost associated with meeting the service level agreement.

52. Sheets et al teaches a method and system for operating a hosted service provider for the internet that is capable of dynamically reallocating servers across multiple disparate customer accounts to provide hosted services with a more economical and flexible server farm management (column 6, lines 19-23; column 7, lines 9-13) wherein the cost associated with meeting a service level agreement is determined (column 18, lines 60-67).

53. Chandra et al and Sheets et al are analogous art since they are both directed to dynamic reallocation of resources in a shared data center.

54. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the simulating of a workload profile using a resource profile to produce a simulation result as taught by Chandra et al to further include determining the cost associated with meeting a service level agreement as taught by Sheets et al since Sheets et al teaches a method and system for operating a hosted service provider for the internet that is capable of dynamically reallocating servers across multiple disparate customer accounts to provide hosted services with a more

economical and flexible server farm management (column 6, lines 19-23; column 7, lines 9-13).

Response to Arguments

55. Applicant's arguments filed 7/9/07 have been fully considered but they are not persuasive.

56. Applicant argues that Chandra is directed to dynamic resource allocation which is in contrast to the claimed subject matter that is directed to "modifying a service level agreement rather than the actual allocation of resources while in the process of providing those resources" (page 25, paragraphs 2-3). It is the Examiner's position that limitations in the claims are not directed to "modifying a service level agreement". Claim 1 recites, "...the resource profile subset is modified during the simulation according to the service level agreement", and does not contain any limitations that recite a modification of the "service level agreement". It is the Examiner's interpretation that Claim 1 is directed to the modification of the allocated resources. Claim 13 recites, "...logic for modifying the allocated subset of the available computing resources based upon the service level result", and does not contain any limitations that recite a modification of the "service level agreement". It is the Examiner's interpretation that Claim 13 is directed at the modification of the allocated resources. Claim 21 recites, "...signaling whether the computing resource profile will process the workload profile at an expected service level corresponding to the service level agreement", and does not contain any limitations that recite a modification of the "service level agreement".

57. Applicant further recites as to Chandra, "there is no teaching or suggestion directed to modifying an agreement such as a SLA" (page 25, paragraph 2). The Examiner notes that the claim limitations directed to modifying the service level agreement are recited in Claims 9, 19 and 26 that are rejected under 35 U.S.C. 103(a) as being unpatentable over Chandra et al in view of Nagarajan et al in which the teachings of Nagarajan et al are relied upon to teach or suggest this limitation as recited above.

58. Applicant recites that neither Chandra nor Nagarajan suggests specific claimed elements of Applicants' claimed subject matter, i.e., "resource list" and "allocated resource list" (page 26, paragraph 2). The Examiner contends that Chandra in view of Nagarajan teaches or suggests a "resource list" and "allocated resource list" (page 2, section A, lines 1-10; page 3, column 1, lines 1-6) wherein Chandra teaches modeling a server resource using a series of n-queues, the modeling using the n-queues suggesting a "resource list" and further teaches the "allocation" of resources to each of these queues that details an allocated subset of computing resources, suggesting an "allocated resource list". Further, Chandra also teaches that the server model is "applicable to many hardware and software resources found on a server; hardware resources include the network interface bandwidth, the CPU and in some cases, the disk bandwidth, while software resource include socket accept queues in a web server servicing multiple virtual domains" (page 2, section A, lines 17-23).

59. Applicant recites that neither Chandra nor Nagarajan suggests specific claimed elements of Applicants' claimed subject matter, i.e., "demand profile" and "workload

profile" (page 26, paragraph 2). The Examiner contends that Chandra in view of Nagarajan teaches or suggests a "workload profile" that represents a "demand profile", as required by the claims, wherein Chandra teaches a prediction module that is used to estimate and predict the future workload (page 3, "Dynamic Resource Allocation", paragraph 1; page 5, "Workload Prediction Techniques", paragraph 2) wherein the prediction of the future workload suggests a "workload profile" that is based on the anticipated demand on the system.

60. Applicant suggests that a prima facie case of obviousness has not been established because all claim limitations have not been taught or suggested by the prior art (page 26, paragraph 3). It is the Examiner's position that all limitations have been addressed and are supported by the prior art of record at cited in the rejections of the claims and further discussed in response to Applicant's arguments. Further, the Examiner clearly identified a suggestion or motivation to combine Chandra et al and Nagarajan et al wherein Nagarajan et al teaches simulation as an important process in documenting service level agreements (SLA) since simulation studies allow an Internet Service Provider (ISP) to verify their SLA agreements and check if it meets customer expectations and whether the specified service could be provided (section 1, paragraph 2, lines 4-6). Lastly, the Examiner recited that the arts are considered analogous since they are both directed to the testing of an ISP's allocation of resources and whether they satisfy workload demand and the expected service level corresponding to a service level agreement, therefore, a reasonable expectation of success would be present in the combination of the teachings.

Conclusion

61. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

62. Takahashi et al (US Patent 7,184,945) teaches a method for balancing load distribution among servers where simulations are performed to predict a server load and based on the results of this prediction, settings are determined to distribute the services among servers to that the load is balanced.

63. McKinnon, III et al (US Patent 7,184,398) teaches a method of providing network access across a shared communications medium between competing users including allocating network access for each user for a future time interval, wherein users with high network access usage are identified and solicited to modify service level agreements.

64. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

65. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary C. Jacob whose telephone number is 571-272-6249. The examiner can normally be reached Tuesday-Thursday, 7AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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